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Mary D. Fan

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DEMOCRATIZING PROOF: POOLING PUBLIC AND POLICE BODY-CAMERA VIDEOS

MARY D. FAN

There are two cultural revolutions in recording the police. From the vantage of police departments, there is the rapidly spreading uptake of police-worn body cameras. On the public side, community members are increasingly using their cell phone cameras to record the police. Together, these dual recording revolutions are generating important new questions and possibilities regarding the balance of power in producing proof and illuminating contested encounters. This Essay is about how pooling police body camera and public videos can address three emerging challenges in the police recording revolution. The first challenge is the controversy over failures to record contested encounters by officers wearing body cameras. The second is the perceptual biases and limitations of body-camera video. The third is nondisclosure and policy limits on use of body-camera video to detect violations.

This Essay argues that pooling public and police videos serves an important function in addition to offering evidence to solve crime. Including public videos in the official record democratizes proof so that members of the public can help shape and contest the official story. Perspective matters. A story can shift powerfully depending on the vantage point from which it is perceived and filmed—and depending on whether it is recorded at all. In addition to enhancing investigations, pooling public videos with police reports and recordings can better inform prosecutorial, defense, and judicial decision-making as well as police regulation.

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** Henry M. Jackson Professor of Law, University of Washington School of Law. Thanks to David Ardia, Lauren Kosches, Richard Myers, Mary-Rose Papandrea, Elizabeth Robinson, and Cordon Smart for the invitation to join the symposium and their excellent insights and to the outstanding team at the North Carolina Law Review, especially the lead editor on this article, Lauren Kosches.
INTRODUCTION

In the softening light of dusk in Anacostia, in Washington, D.C.’s southeast quadrant, a call from dispatch crackles over the police patrol car’s radio.1 Multiple persons have reported that there is a youth brandishing a gun. Lights activated, the patrol unit I am riding in joins others responding to the call, converging at the intersection where people reported last seeing the armed youth. No person

1. These and other narratives derive from my fieldwork during police ridealongs in Anacostia, in southeastern Washington, D.C., and in the Western and Central districts of Baltimore. In addition, this Essay will include narratives and interviews with members of Copwatch NYC. Notes from Ridealong with the Metropolitan Police of Washington, D.C., 7th District (May 23, 2017) (on file with the North Carolina Law Review).
bearing a gun is in sight. The patrol cars fan out to search adjacent streets.

The radio crackles again, summoning the officers to a nearby housing project. A suspect fitting the description is stopped with several of his friends in a public area on the ground floor of the complex. All the stopped persons are young black males, ranging from teenagers to young adults. At least three of the youths have their cell phone cameras out and are recording the officers at the scene and the several other officers arriving to provide backup. With their cell phone cameras aimed, the youths protest in variations of the following, as voiced by one of the teens: “What the fuck you stopping us for? We didn’t do anything.”

The cameras on all sides are recording as officers frisk the detained youths. Each officer wears a body camera, catching the scene from his or her position. Bent with legs spread for a frisk and a hand braced against the wall, the youths continue to hold out their cell phones, recording from their positions.

The search does not turn up any weapons. Officers search the grass and shrubs near the building in case guns were dropped nearby. The canvass also does not turn up weapons. The youths are free to leave and the officers withdraw to their patrol cars.

Furious about the stop-and-frisk, the youths run after the officers shouting things like, “Get the fuck out of here!” “You must have been nerds in school getting beat up and now you want to bully people.” “Are you scared? Are you scared?” All the frustration and pain of being perennially a suspect as a young black male in a neighborhood long designated as high-crime, and thus under higher suspicion,2 pours forth as the teens and young men run after the retreating cops, calling out and recording.

Grim-faced, recorded on multiple devices mounted on their chests and the cell phones aimed at them from the shouting youths, the officers are silent in their retreat. Taunts escalate, referring to the race, gender, and stature or size of the officers (several black officers, one woman, and shorter heavier officers bear the brunt of such taunts). The officers remain determinedly silent. In the patrol cars, the atmosphere is heavy and silent with words suppressed unsaid. The body cameras do not deactivate until the encounter ends and the youths running after the cops are well out of sight.

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2. See, e.g., Illinois v. Wardlow, 528 U.S. 119, 125–26 (2000) (holding that running from the police in a high-crime area is a sufficient basis for reasonable suspicion for a stop).
In an encounter filled with anger and humiliation on all sides, the cameras wielded by the officers and the youths were protection more powerful than any traditional weapon. Because the stop-and-frisk yielded no evidence, no court or other adjudicator is likely to review the rights and wrongs of the encounter. Absent the compulsion of a court order, there is limited data on stops and frisks in many jurisdictions in America. Yet the youths were creating their own record of the actions of the police. The officers wearing body cameras were doing so too. If anything went poorly in this specific encounter, there would be a video, recorded from the perspective of each side. And even if nothing erupted from this specific encounter, there would still be a video documenting that this event occurred as well as the identities and demographics of the people involved.

Such is our modern condition of police regulation by recording. We live in an age of toutveillance. Toutveillance is more than the top-down of surveillance connoted by the French sur, meaning above or over. Toutveillance also is more than bottom-up control suggested by sousveillance, from the French sous, meaning below or underneath. Rather, people and the police are recording each other from all directions, making everyone at once surveilled and surveillor. I am recording you, you are recording me, and the police are recording us too, because the people demand it. The lines of power and control radiate from all directions as people seek to document their perceptions and thus shape the narrative. This is captured by the flexible French pronoun tout, meaning all or every. This also is captured by the simultaneous recording of law enforcement activities by officers wearing body cameras and by community members wielding cell phones.


5. Cf. Steve Mann, Equiveillance: The Equilibrium Between Surveillance and Sousveillance, WEARCAM.ORG (May 2005), http://wearcam.org/anonequity.htm [https//perma.cc/2ZPJ-CVZ3] (“Surveillance is derived from [the] French ‘sur’ (above) and ‘veiller’ (to watch). Typically (though not necessarily) surveillance cameras look down from above, both physically (from high poles) as well as hierarchically (bosses watching employees, citizens watching police, cab drivers photographing passengers, and shopkeepers videotaping shoppers).”).

6. See Steve Mann, Veillance and Reciprocal Transparency: Surveillance Versus Sousveillance, AR Glass, Lifelogging, and Wearable Computing, 2013 PROC. IEEE INT’L SYMP. ON TECH. & SOC’Y 1, 3–4 (defining the term “sousveillance” as referring to bottom-up recording such as citizens monitoring the watchmen through cell phone cameras).
While the recordings from different perspectives offer multiple sides of the story, only one side—that of the police—is uploaded securely to the cloud, ensuring video integrity, evidentiary chain of custody, and inclusion in the official record. Technology exists to change this status quo. A leading policing-technology company has debuted a system that permits officers to invite members of the public to upload their video securely to the cloud where police body-camera videos also are stored. As is frequently the case, however, law and policy lags behind the new potential opened by technology.

Addressing the great potential and open questions in this new frontier of crowdsourcing evidence, this Essay explores the importance of pooling public and police videos for purposes beyond the investigation and prosecution of crimes. Allowing community member videos into the official record can improve police accountability; address imbalances of power in police-said, defendant-said credibility contests; and offer a fuller picture of what happened in a contested incident. Pooling police body-camera and public recordings also can address three emerging challenges in the body-camera revolution. First is the missing-video problem—the rise of controversies over failures to record contested encounters by officers wearing body cameras. The second challenge is the limited vantage and perceptual biases of camera angle, perspective, and time-framing. The third set of challenges are policy limitations on the use of police body-camera videos to detect potential patterns of violations.

Crowdsourcing audiovisual data has proved powerful in the investigation of crimes, such as the Boston Marathon bombing.
Major companies tailor their products to appeal to their purchasers. The major customers for policing technology companies are police departments. Accordingly, the commercial impetus for developing technology to permit the pooling of community member and police videos is to enhance investigations and accumulate evidence. Technology borne of one important purpose can serve other important goals, however, particularly if law and policy provide the imperative to police departments to expand the vision.

Recording by the public supplements police-worn body-camera recordings in at least three important ways. First, the recording by a community member may be the only audiovisual evidence where no body-camera video exists at all, either in a jurisdiction that has not yet deployed body cameras, or where officers did not record despite wearing body cameras. Bystander videos, such as the cell phone recording made by immigrant barber Feidin Santana of the shooting of Walter Scott in North Charleston, South Carolina, can powerfully challenge and correct the official account of what happened. Scott died in a police shooting after a minor traffic stop for a broken taillight. The officer’s account was that Scott was shot while reaching for an officer’s taser. Santana’s video, which went viral, showed the


15. See Mary D. Fan, Missing Police Body Camera Videos: Remedies, Evidentiary Fairness, and Automatic Activation, 52 GA. L. REV. 57, 74–82 (2017) (discussing the challenges of addressing failures to record using officer-worn body cameras); see also infra Section II.A.


world a different story: an officer shot Scott in the back from fifteen to twenty feet away as Scott was running away following the minor traffic stop.¹⁹

Second, community member videos can offer an important competing perspective.²⁰ The framing and perspective of videos can subtly shape viewer perceptions about legally important issues, such as whether an encounter was justified or improperly coerced.²¹ Third, community member recordings, whether by bystanders or organized community member recording or “copwatch” groups, can help generate an official record where none may exist, such as in a street stop-and-frisk that yields no evidence.²² Individually, such a stop-and-frisk may not present a legal case or controversy. In the aggregate, however, documenting such opaque street-level encounters may reveal important legally significant patterns and practices. Uploaded to the cloud alongside numerous other videos, aggregated audiovisual big data over many such encounters can give a powerful picture of law enforcement actions.

The Essay proceeds in three parts. Part I is about the dual cultural revolutions when it comes to recording the police. This Part discusses how the police-worn body-camera revolution and the copwatch revolutions can be complementary rather than conflicting. Part II is about how pooling public and police body-camera videos can serve important purposes beyond generating more evidence for criminal investigation and prosecution. This Part discusses how evidentiary crowdsourcing technology can also be an important tool for purposes of police regulation, accountability, and ensuring a full and fair defense. Part III explores the avenues for, and advantages of, pooling public and police videos to foster the democratization of proof. This Part also proposes alternative independent mechanisms beyond uploading community member videos to police databases to

¹⁹. Id.
²⁰. See infra Part II.
²². See infra Part I.
ensure evidentiary integrity and to permit analytics to improve police regulation and accountability.

I. DUAL CULTURAL REVOLUTIONS IN RECORDING THE POLICE

It is a tense moment. An arrest is about to occur. Multiple community members have their cell phone cameras aimed at the officer, with some people streaming to Facebook Live. Accusations and invectives fly from the gathered people, some of whom shout that they got everything on video. The body camera on the officer is capturing the moment too. “If we try to arrest someone, they’ll all be out filming us,” the officer explains to me. “But now we have these cameras and we’ll film them right back.”

The showdown by camera captures the dual recording revolutions sweeping policing. We live in an age of more mobile cameras ready to record at a moment’s notice than ever before in history. In communities fraught with police-citizen tension, like the Western District of Baltimore, or the Anacostia neighborhood of Washington, D.C., cameras act as insurance on both sides. As a patrol officer coming off a tough shift tells me, “People think we don’t like [body cameras] but we don’t mind them here. Because they can help. Because people are always lying. They lie, lie, lie about what went down. Now we can just point to this,” pointing to the body camera on his chest.

From a different perspective, CopWatch NYC and Black Lives Matter activist Elsa Waite explains, “Police lie and they lie for each other.” A prime example, she observes, is the killing of Walter Scott, when the police officers all told the same story in their reports—later contradicted by the bystander video. By recording the police, Waite says, “We are creating a permanent record so that we look back on this 20, 50, 100 years from now the powers that be cannot say that this

23. Field Notes, Ridealong Central and Western Districts, Baltimore Police Dep’t, p.18 (May 18, 2017) (on file with the North Carolina Law Review).
27. Id.
wasn’t happening. This turns public attention and public awareness, and it turns the public opinion.”

Some determined members of the public have recorded the police long before this era of viral violent videos. Before the citizen recordings of the deaths of Walter Scott, Alton Sterling, Eric Garner, and other slain people, the recorded beating of Rodney King seized national attention. Before the spread of police-worn body cameras after the national outcry following the fires of Ferguson in 2014, departments had widely deployed patrol car dash cameras and a few early movers had even adopted body cameras. What makes this moment revolutionary, however, is the pervasiveness, heightened probability, and normalization of recording by the police and public. This Part discusses the rise of the dual recording revolutions and their competing and complementary potential to reshape the balance of law and power. For community members, recording the police is a form of self-protection, protest, and proof and is a peaceful way to redress an imbalance of power in credibility and the legitimate use of force. For police departments, adopting body cameras responds to public demand for transparency, better evidence, and accountability and can be a way to exonerate officers and prevent angry speculation and riots in controversial cases.

A. From Arrest to Protest: When the Public Records the Police

For recording the police, Tony Alford was arrested, his car was towed, and he spent the night in jail—though recording the police was not a crime under state law. Heading to work one November night

28. *Id.* at 4–5.
32. *See infra* Section I.A.
33. *See infra* Section I.B.
34. Alford v. Haner, 333 F.3d 972, 974–75 (9th Cir. 2003), rev’d sub nom, Devenpeck v. Alford, 543 U.S. 146 (2004); *see also* State v. Flora, 845 P.2d 1355, 1358 (Wash. Ct. App. 1992) (holding that recording police officers performing their public duties, in this case an arrest, is not a violation of the state’s privacy act because “the arrest was not entitled to be private” and the officers “could not reasonably have considered their words private”).
in 1997, Alford stopped to help motorists stranded by the side of the road with a flat tire.\footnote{Devenpeck v. Alford, 543 U.S. 146, 148 (2004).} Alford helped the people jack up their car, gave them his flashlight, and then went back to his car.\footnote{Id.}

Meanwhile, a state trooper, who was headed in the opposite direction, saw the disabled vehicle and Alford pulling his car over to help.\footnote{Id.} The trooper, Joi Haner, turned his car around and arrived at the scene as Alford was going back to his car.\footnote{Id. at 148–49.} Alford told the trooper that the motorists had a flat tire and that he gave them the flashlight they needed to fix it.\footnote{Devenpeck, 543 U.S. at 148.} Alford then drove off.\footnote{Id. at 148–49.} Haner checked on the stranded motorists, who told him they thought Alford was a police officer because Alford’s car had wig-wag headlights, the distinctive alternatively flashing headlights of police vehicles.\footnote{Haner, 333 F.3d at 975.}

Haner became concerned that Alford was impersonating a police officer.\footnote{Haner, 333 F.3d at 974.} He called his supervisor Sergeant Devenpeck and then pursued Alford, pulling him over.\footnote{Id. at 975.} Haner noted that Alford’s license plate was virtually undecipherable because of a tinted plate cover.\footnote{Devenpeck, 543 U.S. at 149.} He also noted that Alford had a portable police scanner, handcuffs, and an amateur radio that relayed calls from the Kitsap County Sheriff’s Office.\footnote{Haner, 333 F.3d at 976.} While Haner and Sergeant Devenpeck, who arrived to investigate, clearly found Alford creepy, the officers ultimately arrested Alford because he recorded their conversation.\footnote{Id. at 976.} Sergeant Devenpeck informed Alford he was under arrest for allegedly illegally recording the encounter.\footnote{Haner, 333 F.3d at 975.}
This was apparently not the first time Alford had recorded the police. He told the officers that he had a similar run-in with sheriff’s deputies over recording their interactions. He said he carried in his glove compartment a Washington Court of Appeals opinion holding that the state’s Privacy Act prohibiting recording without permission did not apply to police officers performing their public duties. Refusing to examine the opinion, Sergeant Devenpeck ordered Alford transported to jail. He testified later that the arrest was based solely on his belief that recording the encounter violated state law. Though the belief was mistaken and it was legal to record, the U.S. Supreme Court held the arrest would nonetheless be proper if the facts known to the officer would give rise to some other violation—even if a prosecutor had to post hoc propose an alternative basis to justify the arrest for a non-crime.

Fast-forward two decades. The setting is the same state, also on a late autumn evening. Another police-watch enthusiast, Tim Clemans, is out recording the police, as he often does in the bustling hours of 1 to 2:30 a.m. on Saturdays and Sundays, when the night spots in the Capitol Hill neighborhood of Seattle are hopping. Clemans explains that he started using his cell phone “as an always on bodycam” when he heard about a Google manager who was assaulted by an officer for checking on the welfare of a suspect in a police encounter. He mounts the cell phone on his chest, and the video uploads to YouTube every few minutes. The cell phone is plugged into a fast-charging battery pack because he does “a lot of filming of police” and he has the camera always on so that he does not miss important things.

Clemans is well-known to the police as a notorious requester. He made public records requests to police departments across

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48. Id.
49. Id. The Court of Appeals of Washington had indeed so held that the state’s Privacy Act did not apply to officers performing their public duties, such as arrests. State v. Flora, 845 P.2d 1355, 1358 (Wash. Ct. App. 1992).
50. Devenpeck, 543 U.S. at 150; Haner, 333 F.3d at 975.
51. Haner, 333 F.3d at 975.
52. Devenpeck, 543 U.S. at 155–56.
53. E-mail from Tim Clemans to author (Sept. 20, 2016, 11:36 AM PST) (on file with the North Carolina Law Review).
54. E-mail from Tim Clemans to author (Sept. 20, 2016, 11:10 AM PST) (on file with the North Carolina Law Review).
55. Id.
56. Id.
57. Mark Harris, The Body Cam Hacker Who Schooled the Police, MEDIUM: BACKCHANNEL (May 22, 2015), https://medium.com/backchannel/the-body-cam-hacker-
Washington state for police videos from dash cameras and body cameras. Small police departments like Spokane or Bellingham, without the resources to painstakingly redact or fight the broad public disclosure requests, released volumes of body-camera and dashcam video, sometimes in sensitive contexts, which Clemans posted to YouTube for a while. The Seattle Police Department wrestled with how to redact sensitive information from more than 360 terabytes worth of dash camera videos, 911 call records, and other data subject to thirty broad public disclosure requests by Clemans. In a savvy move, the Department hired Clemans, who then dropped his requests, only to file 200 more when he resigned due to personality conflicts. Though Clemans is no darling of the Department, unlike Alford, he has never been arrested for his recording activities.

Times, attitudes, and case law on recording the police have changed dramatically. Every federal circuit court to address the question has ruled that there is a First Amendment right to record the police in public. Of course, some officers have continued to stop people from photographing or recording police activities, seized and searched cell phones used to record, and issued citations under broad headings like obstruction. The Ninth Circuit has ruled that officers who do so are subject to civil rights lawsuits and are not shielded by qualified immunity, which can be overcome only if an officer violates...
clearly established rights. The Third Circuit earlier ruled that the right to record officers is not clearly established to overcome qualified immunity. But subsequently, in its recent decision in *Fields v. City of Philadelphia*, the Third Circuit joined the “growing consensus” on First Amendment protections against retaliation for recording the police, meaning officers now should not expect qualified immunity. The Fifth Circuit’s recent decision recognizing a First Amendment right to record accorded the officers qualified immunity. But going forward, officers are similarly on notice regarding the right to record.

With protection by the courts, community members are increasingly aiming their cameras at the police to protest, check power, create proof, and sometimes just to satisfy their curiosity. Some community recording arises from organized copwatching. In many prominent cases, the recordings are made by bystanders who were incidentally or fortuitously at the scene and were moved to record. This movement on the streets is prompting an efflorescence of scholarship exploring the First Amendment bases for the right to record.

Beyond the books, each case of crucial bystander video that hits the news, and each copwatch group that educates more people about the right to record, create farther-reaching cultural cascades. Opinion leaders can influence informational and reputational cascades to spread new social norms and influence behaviors. As more people record the police, the social meaning of the conduct can change from

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64. Adkins v. Limtiaco, 537 F. App’x 721, 721–22 (9th Cir. 2013) (mem.).
66. 862 F.3d 353 (3d Cir. 2017).
67. Id. at 355–56.
68. Turner v. Lieutenant Driver, 848 F.3d 678, 687 (5th Cir. 2017).
69. Id. at 688.
71. See, e.g., Lowery & Izadi, *supra* note 17 (discussing a bystander’s video contradicting the officers’ account of a shooting).
creepy to societally beneficial, even courageous.74 The hope of copwatch educators like Anthony Beckford is that education about the power to record also changes the consciousness of the people regarding power over police oversight. He explains:

Copwatching is something we all can do in different capacities. I teach you how to recognize when you’re just out on the train. The whole thing is [for] copwatching to be like everyday actions. It’s not just going to a protest or going to a march. You live social justice. Hopefully as you go through your day, you question [things.] Once you start to think about it, you want to do something about it.75

Barry Friedman has recently argued that democratic disengagement with police oversight contributes to controversies and crises over abuse of power.76 Beyond aiming more cameras at police, the larger project of copwatching is cultivating a culture of public concern that can help address this democratic disengagement.

B. Radical Transparency: The Rapid Spread of Police-Worn Body Cameras

For a police officer, wearing a body camera is potentially more intrusive than other forms of recording because more activities can be recorded than a bystander or dash camera can capture.77 Police unions

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76. See BARRY FRIEDMAN, UNWARRANTED: POLICING WITHOUT PERMISSION xiv (2017) (“We have abdicated our most fundamental responsibility as citizens in a democracy: to be in charge of those who act in our name.”).
and officers have expressed concern about the incursions on the employee’s privacy, as well as the privacy of people who call the police for help in their worst moments.\textsuperscript{78} Unsurprisingly, body cameras were not wildly popular before 2014. A July 2013 survey found that less than a quarter of the 254 departments that responded used body cameras.\textsuperscript{79}

Then came what police leaders have termed a “watershed moment in policing”—the death of Michael Brown in Ferguson, Missouri, and the increased national focus on the deaths of young black men and children in police encounters.\textsuperscript{80} The nation and world watched in horror as fires from protests burned and tanks rolled down the streets of Ferguson after a grand jury refused to indict Officer Darren Wilson for shooting an unarmed black youth, Michael Brown, age eighteen.\textsuperscript{81} Wilson was responding to a call about a convenience store robbery, in which Brown was the suspect.\textsuperscript{82} Witness accounts


differed on whether Officer Wilson punched and then shot Brown when Brown had his hands up in surrender—or whether it was Brown who punched Wilson, tried to grab his gun, and turned to charge at the time he was shot. There was no video recording of the fatal encounter to offer additional perspective or mediate the sharply conflicting witness accounts.

Michael Brown’s mother made a poignant call urging police to wear body cameras. Perhaps the biggest change to arise from the protests that have wracked the nation over the deaths of Michael Brown and other young black men is the rapid adoption of police-worn body cameras. Public opinion polls indicated that support for body cameras was widespread, cutting across ideological and racial divides.

The rapidity of body-camera uptake shows the power of interest convergence, when the self-interest of the powerful converges with the interests of reformers. The urgency of the need to address police accountability led civil rights and civil liberties groups such as the NAACP, the Lawyer’s Committee for Civil Rights under Law, and even the privacy-protective ACLU, to join in calling for police-worn body cameras. The crisis in public confidence also showed police


89. LAWYERS’ COMM. FOR CIVIL RIGHTS UNDER LAW ET AL., A UNIFIED STATEMENT OF ACTION TO PROMOTE REFORM AND STOP POLICE ABUSE 1–3 (Aug. 18, 2014), https://www.aclu.org/sites/default/files/assets/black_leaders_joint_statement_-_final
chiefs the value of body cameras to supply evidence, rebuild trust, reduce unfounded complaints, and potentially exonerate officers.90

The outcome of the U.S. Department of Justice’s investigation into the killing of Brown in Ferguson underscored to police chiefs the potential benefits of body cameras. Seven months after protests rocked the nation, the U.S. Department of Justice found that the forensic evidence contradicted accounts that Brown was shot in the back when his hands were up in surrender.91 The outcome underscored the importance of video evidence in addressing societal unrest over contested encounters.92 After Ferguson and other highly publicized killings by police, departments rushed to announce body-camera plans.93 By the end of 2015, a nationwide survey found that
ninety-five percent of the seventy law enforcement agencies surveyed were planning to adopt body cameras or had already done so.\textsuperscript{94}

Across the spectrum of perspectives, a commonly cited hope is that the public and the police will behave better if they know they are being recorded, thus averting escalation into violence.\textsuperscript{95} One of the most oft-invoked and earliest studies about the potential effectiveness of body cameras involves fifty-four officers of the Rialto Police Department who were randomly assigned to wear body cameras or not wear body cameras.\textsuperscript{96} The results indicated that officers not wearing body cameras used force twice as often as officers wearing body cameras.\textsuperscript{97} However, the investigators were unable to detect a statistically significant between-groups effect due to the low number of complaints against either group.\textsuperscript{98} A comparison of complaint volume and uses of force before and after body cameras in Rialto indicated that the volume of complaints fell by more than ninety percent, and uses of force dropped by sixty percent.\textsuperscript{99}

Promising findings have been replicated in other police departments. A study of body cameras mounted on Phoenix Police Department officers found that complaints against officers declined by 22.5\% even as complaints against officers in comparable precincts were rising.\textsuperscript{100} A study of the Mesa Police Department found a forty


\textsuperscript{96} Barak Ariel, William A. Farrar & Alex Sutherland, \textit{The Effect of Police Body-Worn Cameras on Use of Force and Citizens’ Complaints Against the Police: A Randomized Controlled Trial}, 31 J. QUANTITATIVE CRIMINOLOGY 509, 520 (2015).

\textsuperscript{97} \textit{Id.} at 523.

\textsuperscript{98} \textit{Id.} at 524.

\textsuperscript{99} \textit{Id.}

percent decline in complaints against officers and a seventy-five percent drop in use of force incidents after the introduction of body cameras.101 A study of the Orlando Police Department found a statistically significant 65.4% reduction in external complaints against officers for officers who wore body cameras.102

However, other findings are mixed and concerning. Early results from the largest set of randomized controlled trials of the effectiveness of body cameras found that uses of force increased by seventy-one percent among officers with body cameras who recorded at their discretion rather than when they followed recording rules.103 A meta-analysis of randomized controlled trials from ten discrete tests found a statistically significant increased rate of assaults upon officers wearing body cameras.104 Some studies have been unable to detect a statistically significant effect on reducing use of force or complaints against officers.105

Body-camera skepticism is growing. Howard Wasserman has cautioned that the rapid turn to body cameras shows the signs of a moral panic prompting a search for a quick technological fix.106 Elizabeth Joh has expressed concern over the rush to embrace body cameras without secure policies in place.107 Police regulation by

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101. WHITE, supra note 95, at 35; Jennings et al., supra note 95, at 550.
102. Wesley G. Jennings, Mathew D. Lynch & Lorie A. Fridell, Evaluating the Impact of Police Officer Body-Worn Cameras (BWCs) on Response-to-Resistance and Serious External Complaints: Evidence from the Orlando Police Department (OPD) Experience Utilizing a Randomized Controlled Experiment, 43 J. CRIM. JUST. 480, 480 (2015).
107. See Elizabeth E. Joh, Beyond Surveillance: Data Control and Body Cameras, 14 SURVEILLANCE & SOC’Y 133, 136 (2016) ("[I]n the rush to respond to calls for greater police accountability, many American police departments lack consistent, clear, or—in some cases—any, formal policies regarding how to control that data. Without clear limits,
radical transparency also poses potentially severe privacy harms and difficult questions about how to balance public disclosure with privacy. Additional controversies are arising in the days following the body-camera revolution over nondisclosure of police body-camera videos and failures to record by officers wearing body cameras.109

Finally, as interpretive conflicts persist despite the availability of videos of controversial police encounters, there is a growing literature extending findings on perceptual biases to the police video context. Video is no magic bullet to end fierce conflicts in interpretation, but as discussed in the subsequent Sections, a plethora of police and public videos can help address perceptual biases and provide more data for decision-making. The next Part discusses three challenges that are emerging with police-worn body-camera videos and how pooling police and public videos can address them.

II. THREE GROWING CHALLENGES WITH POLICE-WORN BODY CAMERAS

The real test of seemingly good ideas on paper is the implementation on the ground. As more departments begin putting body cameras on their officers, new and existing frontiers of controversy are emerging and growing. This Part focuses on three such challenges with the production and use of police-worn body cameras. The first set of challenges is controversies over failures to
record contested encounters by officers wearing body cameras. The second is perceptual and interpretive limitations and biases when it comes to audiovisual evidence. The third is growing controversies over nondisclosure of police body-camera videos and limitations on their use for officer evaluation. The overview sets the framework for discussing how pooling public and police recordings can address these three important challenges.

A. Controversies Over Failures to Record by Officers Wearing Body Cameras

Days of protests and chaos erupted in Charlotte, North Carolina, after the shooting of Keith Scott. The police officers said he was armed and refused to drop the weapon. His family said he was holding a book. The officer at the scene, who was wearing a body camera, did not activate the camera until after the fatal shooting, though under departmental policy, the encounter should have been recorded. The major brand of body cameras that the Charlotte-Mecklenburg Police Department uses requires officers to double-tap to record, capturing both audio and video. If the camera is not activated, it is on buffer mode, which only saves the most recent thirty seconds of soundless video. After four days of turbulent protests, authorities produced body-camera video that was missing audio of the crucial moments before the shooting.

Other controversies over missing video are emerging as more police departments deploy body cameras. To take three more...
highly controversial examples, in Minneapolis, the officer who shot Justine Damond after she called to report sexual assault was wearing a body camera, but did not activate it to record the fatal encounter. In Baton Rouge, the officers involved in the fatal shooting of Alton Sterling were both wearing body cameras—but both claimed the cameras fell off during the altercation. In Chicago, the officer who fired the fatal shot in the back of eighteen-year-old Paul O’Neal, following a car pursuit and then a foot chase, did not record until after the shooting.


difficult, as recent controversies illustrate.\(^\text{127}\) There are many legitimate reasons for not recording, such as the exigencies and stress of the moment, technological malfunction, inexperience, the transition to new technology and mandates, and other mistakes.\(^\text{128}\) But there are also potentially problematic reasons for failures to record, such as refusal to comply with the rules, concealment, or subversion.\(^\text{129}\) Parsing between legitimate and illegitimate reasons for failures to record can lead courts and the public into a murky morass.\(^\text{130}\)

In an earlier work, I discussed judicial and technological remedies for the missing video problem.\(^\text{131}\) Ultimately, the optimal longer-term approach is to automate recording, reducing the risk of human error or resistance in the heat and stress of unfolding situations in the field.\(^\text{132}\) Policing technology companies are debuting automatic activation systems relying on triggers such as the motion of a gun drawn from the holster; a gunshot; in-car indicators such as siren activation, acceleration or doors opening or closing; physiological indicators of stress; and geofencing to activate upon entry into certain areas.\(^\text{133}\) Technology also exists to automatically activate all the body cameras of officers within the radius of an event, offering more angles of recording for a fuller context.\(^\text{134}\)

These approaches focus on maximizing the utility of law enforcement recording technology. As discussed in Part III, there are

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\(^\text{127}\) See supra notes 116–26 and accompanying text.


\(^\text{129}\) Fan, supra note 15, at 89–93.

\(^\text{130}\) Id.

\(^\text{131}\) Id. at 94–104.

\(^\text{132}\) Id. at 106–07.


additional benefits to harnessing the power of recording by community members to supplement government recordings. Besides the automatic activation and judicial remedies that I have explored in earlier work, this Essay explores how pooling recordings by the public with those by the police also can help address the missing video problem.135

B. Perceptual and Interpretative Limitations and Biases

Many scholars have begun to question the truthfulness of video evidence and the partiality of perception.136 Recordings have the volatile, sometimes potentially misleading, power to seem to offer the viewer a window into what really happened.137 One of the rationales for the adoption of body cameras is the hope that recordings will “provide an unbiased audio and video recording of events that officers encounter.”138 The hope is that unlike human memory and narratives, recordings are objective and impartial.139

The allure of video’s seeming transparency into truth heightens the risk that viewers will miss the persuasion effects and even potential distortion caused by angle, framing, perspective, and the filter of one’s own preconceived notions.140 A camera’s position and angle, the perspective from which recordings are made, and the time-framing of what is recorded all may powerfully shape a story and potentially mislead. A suspect may look belligerent in the moments before force is used—but crucial events that rouse the suspect’s ire may go unrecorded if the camera is not activated at the time.141 A body camera may not be at the right angle to catch the flash of a

135. See infra Sections III.A, C.
136. E.g., NEAL FIEGENSON & CHRISTINA SPIESEL, LAW ON DISPLAY 8, 14 (2009); Fan, supra note 4, at 947–53; Kahan et al., supra note 110, at 859, 879; Stoughton, supra note 110, at 1406–13; Wasserman, Recording of and by the Police, supra note 106, at 552, 557; Wasserman, supra note 72, at 1325–296; White & Fradella, supra note 110, at 1628–34.
137. FIEGENSON & SPIESEL, supra note 136, at 8; Fan, supra note 4, at 947–49.
138. PHILA. POLICE DEP’T, supra note 90, at 1; see also, e.g., AUSTIN POLICE DEP’T, supra note 77, at 130 (“The use of Body Worn Camera (BWC) system provides an unbiased audio/video recording of events that employees encounter.”).
139. FIEGENSON & SPIESEL, supra note 136, at 8; Fan, supra note 4, at 947–49.
140. See, e.g., Rebecca Tushnet, Worth a Thousand Words: The Images of Copyright, 125 HARV. L. REV. 683, 692 (2012) (discussing how the seemingly transparent depiction of reality that images offer obscures the manipulation of perception); see also Yee & Johnson, supra note 111, at A1 (discussing how a recording can draw diverging interpretations depending on the viewer’s perspective).
suspect’s weapon or the stomps of officers beating a suspect. Depending on the position and angle of the camera, an encounter may look like an altercation with a writhing, uncooperative suspect rather than the rhythmic pounding on a prone suspect. A contributor to this volume, Seth Stoughton, has created a collection of body-camera videos, shared with the New York Times, that powerfully shows how video evidence can be misleading depending on angle, perspective, and time-framing.

When it comes to evaluating witness testimony, people are more apt to consider the source, and apply their reason and common sense to judge credibility, bias, and demeanor. In contrast, how cameras can subtly persuade and shape the story is less well-known, particularly to the layperson. In the criminal procedure context, some of the most robust bodies of empirical research on how camera perspective can shape viewer judgments come from studies of police interrogation videos. Seemingly small choices like whether a camera is aimed at the suspect rather than the interrogator can influence important legal judgments like the coerciveness of the interrogation or voluntariness of any admissions. People tend to view the most salient person in the frame—the subject at whom the camera is aimed—as having more causal influence over the encounter.

People’s prior ideological commitments also can influence their interpretation of a recording. Dan Kahan’s work on cultural cognition


143. Friedersdorf, supra note 142.


146. FEIGENSON & SPIESEL, supra note 136, at 8; Fan, supra note 4, at 947–49.

147. Lassiter et al., Evaluating Videotaped Confessions, supra note 21, at 224–25; Lassiter et al., Further Evidence of Bias, supra note 21, at 267; see Lassiter et al., Attributional Complexity and the Camera Perspective Bias, supra note 21, at 28–29.

148. Lassiter et al., Attributional Complexity and the Camera Perspective Bias, supra note 21, at 28; Lassiter et al., Further Evidence of Bias, supra note 21, at 268–69.

149. Lassiter et al., Further Evidence of Bias, supra note 21, at 269.
has shown how differing worldviews are associated with diverging interpretations of whether a video depicts excessive or appropriate force. Subsequent work influenced by this school of research has found that the evaluation of recorded police encounters by mock jurors is influenced by their pre-existing perceptions of the police. Social psychological work also has shown how perceptions of threat and danger are mediated by implicit racial biases. Thus, while recordings can provide more data to enrich analyses, video evidence is not a magic panacea for the deep divisions in perception about policing race and force in America.

C. Nondisclosure Controversies and Limits on the Use of Body-Worn Camera Video for Detecting Violations

A third set of emerging challenges with body-camera videos are controversies over refusals to disclose recordings to the public or delayed disclosure. The anger of protesters in Charlotte over the time it took authorities to release recordings of the shooting of Keith Scott is illustrative. While the primary reasons for adopting police-worn body cameras differ depending on perspective, a widespread rationale, particularly embraced by civil rights and community groups, is rebuilding public trust through improved transparency.

150. Kahan et al., supra note 110, at 841.
153. See Yee & Johnson, supra note 111, at A1 (quoting author on diverging interpretations of video).
Nondisclosure or delayed disclosure of body-camera footage has led to anger and outrage among some community groups.157

The perception among the disillusioned is that police-worn body cameras were presented to communities as a tool for improved transparency and accountability to address longstanding controversies over opacity.158 This hope was what led to the widespread support rather than the usual resistance to expanded surveillance.159 Critics are arguing that rather than improving transparency and police accountability, body cameras have become just another way to get more evidence for investigation and prosecutions.160 A related concern is that communities—especially the most heavily surveilled, disadvantaged minority communities—are paying the high privacy costs of more cameras without the promised benefits.161 Concern is further amplified by emerging limits on the use of recordings for officer evaluations or to search for violations under collectively bargained body-camera rules.162 The limits on access and use of the recordings for accountability creates a new frontier of controversy over opacity, Version 2.0—ironically, a new form of opacity surrounding a technology of transparency.

Important values are in tension when it comes to the disclosure and analysis of police body-worn camera videos. Police departments cite concerns that releasing their recordings might prejudice or jeopardize ongoing investigations or interfere with victim and witness protection.163 Privacy protection also looms as a major challenge.164


157. Kindy & Tate, supra note 154.
159. Id.
164. Fan, supra note 59, at 411–12.
the course of a shift, officers enter into the most painful and potentially embarrassing moments of our lives. They enter private homes, schools, hospitals, crime scenes, and other sites filled with sensitive, intimate information. States with broad public disclosure laws like Washington have served as a cautionary tale for disclosure of body-camera videos. Publicly disclosed videos of sensitive situations like domestic violence calls have been posted on YouTube.

Elsewhere, I have told the stories of some of the people affected, whose painful moments were posted online. For example, a woman who called police to report an assault by her husband’s ex-partner ended up on YouTube with intimate details revealed, from her stepchild’s custody arrangements, to her home’s front yard, to her bared torso revealing the scratches from the altercation. The public comments to the video were lacerating. “Jesus, have some self respect or at the least some for your neighbors and clean that shit up off your front yard!” wrote one commentator. Another commentator wrote, “Another white girl who hasn’t realized that ‘if you lay down with dogs, you get fleas!’”

Releasing redacted video rather than refusing to disclose is one approach to balancing transparency, public disclosure, and privacy protection. The difficulty is the labor, time, and resource-intensive process of reviewing and redacting potentially embarrassing private details, such as the identity of juveniles or vulnerable victims and addresses. Though automated-redaction technology is progressing in sophistication, redacting video in motion remains challenging.

165. Id. at 397–98.
166. Id.
168. Fan, supra note 59, at 397 n.2.
169. See id. at 397, 406.
171. Id.
172. Id.
174. Id.
Just a simple redaction in a one-minute video can take as long as thirty minutes of a specialist’s time, according to estimates from the Seattle Police Department. Now consider that a major-city police department like Washington, D.C.’s metropolitan police generates about a thousand hours of body-camera recordings in just one day.

Finally, there is also a related but less well-known cluster of policy roadblocks to using body-camera recordings to detect and prevent patterns and practices of violations. Some body-camera policies promulgated by police departments have express limits against using the recordings to evaluate officers or to search for violations. These provisions often reflect the power of collective bargaining. Under federal labor laws, requiring officers to wear body cameras is arguably a material change in the conditions of employment, and thus necessitates collective bargaining with the police union over the terms and conditions of the change. Collective bargaining can lead to safeguards addressing officer concerns that recordings may be used to “nickel and dime” or harass an officer. While these protections may be valuable for protecting officers from unwarranted harassment, they may also be barriers to analyzing the trove of audiovisual big data police departments are amassing to detect problematic patterns and practices and prevent harms.

III. POOLING POLICE AND PUBLIC VIDEOS TO ADDRESS THE CHALLENGES

Pooling videos recorded by the public with police videos can help address the three major emerging challenges with body cameras discussed in Part II. In the literature, copwatching is presented as an adversarial approach to police reform, in contrast to collaborative models like community policing. While competing cameras in crashes filled with mistrust can appear adversarial, the multiplicity of

178. See supra Section II.C.
180. See id.
182. Simonson, supra note 70, at 394–95.
recording from all sides and different perspectives can be complementary. The rise of recording by the public offers more investigative leads, allowing the police to crowdsolve crimes, identify perpetrators, and prevent harms. The power to crowdsolve evidence also can be channeled to help regulate the police. This Part first explains two approaches to pooling public videos and then discusses the advantages of doing so.

A. Advancing Beyond the Wild West of YouTube, Social Media, and Viral Police Videos

Currently, public videos tend to be distributed in the unruly frontier of YouTube, media outlets, Facebook, and other social media. In this wild domain where going viral to get the message out is the goal, videos are neither systematically stored to maintain chain of custody and integrity for evidentiary purposes nor are they aggregated for analytical purposes. Yet, it is technologically feasible to aggregate and securely store videos recorded by the public to ensure evidentiary integrity and permit analyses of aggregated data. One approach would be access to police evidentiary storage resources. A second approach would be to pool and share public videos independent of government systems in a repository with secure storage features.

1. Quality Control by Pooling Police and Public Videos

Traditionally, video was seen as non-substantive demonstrative evidence that graphically illustrated a witness’s live testimony. Today, the “silent witness” theory is increasingly prevalent, authorizing videos to be used as substantive direct or circumstantial evidence. For a video to be used as substantive evidence, a more rigorous foundation regarding evidentiary integrity is required. Potentially relevant factors in the authentication of video evidence include: (1) there have been no changes, additions or deletions to the recording; (2) the recording was preserved in a way that ensures its integrity; (3) the recording is correct and authentic; (4) the device used to record was capable of capturing the relevant events; (5) the person who recorded was competent to do so; (6) the recording was

183.  See infra Section III.A.
184.  See infra Section III.A.1.
185.  See infra Section III.A.2.
187.  Id.
made in good faith; and (7) participants on the recording are identified.189

A common accusation in challenges to video evidence is that it has been altered or edited.190 Ensuring a secure chain of custody helps to address concerns regarding authenticity, alteration, deletions, or additions.191 Establishing the chain of custody also helps demonstrate that the recording was preserved in a manner that ensures its integrity.192

While the police are experts at ensuring chain of custody and preservation to maintain evidentiary integrity, laypersons with cell phone cameras are typically not well versed in such matters. Laypersons also typically lack access to the secure data storage infrastructure that police departments have. Recognizing that community members are generating potentially important video evidence, a major policing technology company recently unveiled a system that allows officers to invite people to upload their videos securely to the cloud.193 While the idea is driven by the increasing utility of crowdsourcing evidence in investigations and prosecutions, it also has broader utility. Community members may have important recordings of officer conduct relevant to questions of, for example, suppression or citizen complaints. Secure storage of such recordings also can help promote the effective administration of justice.


191. See, e.g., Gallego v. United States, 276 F.2d 914, 916–17 (9th Cir. 1960) (“Before a physical object connected with the commission of a crime may properly be admitted in evidence there must be a showing that such object is in substantially the same condition as when the crime was committed. . . . Factors to be considered in making this determination include the nature of the article, the circumstances surrounding the preservation and custody of it, and the likelihood of intermeddlers tampering with it.”); Erin E. Kenneally, Confluence of Digital Evidence and the Law: On the Forensic Soundness of Live-Remote Digital Evidence Collection, 2005 UCLA J. L. & TECH. 5, 11–13 (“Chain-of-custody is one of the controls used by courts to satisfy admissibility standards. That is to say, the authenticity of physical evidence is shown by accounting for who, what, when, where and how a given piece of evidence was transferred from its initial discovery, through its collection, access, handling, storage and eventual presentation at trial.”).

192. See McEntyre, 717 S.W.2d at 146.

2. An Independent Repository of Public Videos for Analysis

While it may be efficient to piggyback onto the secure-storage and case-file structure of an existing police video data storage system, there are potentially important reasons to have an independent repository of public videos. Recordings made and controlled by the public help shift the balance of power when it comes to evidence. Rather than relying on the police to allow access to infrastructure and stored materials, public repositories can set their own analyses and access rules. The access and data-mining polices can be based on separate independent evaluations of the proper balance between privacy and data analytics to detect potentially problematic practices and patterns. The aggregation of the videos offers a major analytical advantage because data can be examined across cases, officers, districts, and other units, rather than being confined to a particular seemingly isolated incident.

Two major challenges are cost and coordination. Secure data storage, maintenance, and related features remain some of the heaviest costs to police departments adopting body cameras. Some departments have even stopped using body cameras because of the costs. Costs vary depending on anticipated volume of video, size of the jurisdiction, and contract negotiated, usually with a private cloud storage provider. One major policing technology company charges approximately $50 to $100 per officer, per month, for cloud-based data storage. A major city such as San Diego would pay an estimated $3.6 million for five years of storage for 1,000 body cameras, software licenses, warranties, maintenance, and associated equipment. Contracting with a private company to provide secure data storage can be financially daunting for many civic organizations,

194. See Simonson, supra note 72, at 1566 (discussing how public recordings are distinct from body-camera recordings and the resulting power balance shift).
197. Bakst & Foley, supra note 195.
199. Bakst & Foley, supra note 195.
particularly copwatch groups running largely on volunteerism. In addition, there are further coordination costs when it comes to educating the public on how to share their recordings with a central repository. It would take one or more major civic organizational actors with sufficient resources to fund and direct such an effort.

B. The Advantages of Pooling Public Videos

Recordings by members of the public and private entities already are widely recognized by the police as valuable in investigations because they generate leads and evidence.200 Recordings by the public also can open new avenues to crowdsource police accountability, filling in when police recordings are missing, creating pressure to disclose police videos, and offering competing perspectives.201 If aggregated and de-identified to protect privacy, public and police videos also can reveal risk factors for escalation to violence that would be overlooked in an individual case, without a basis for comparison and analysis.202 Harnessing the dual recording revolutions can help address the missing video problem, perceptual limitations and biases, and nondisclosure or limits on the use of police body-camera videos to detect and prevent problematic practices.203

1. Crowdsourcing Evidence

Shortly after two bomb blasts detonated at the finish line of the Boston Marathon, the FBI sought to crowdsource investigative leads from cell phone videos and photos taken by members of the public.204 A breakthrough piece of evidence came from a spectator responding to the call for evidence from the public.205 Investigators had stared fruitlessly at surveillance footage from a restaurant at one of the blast sites, searching for the source of the bomb.206 The cell phone photo supplied the missing link: a photo of a black backpack on the ground.

200. See infra Section III.B.1.
201. See infra Sections III.B.2–3.
202. See infra Section III.C.
203. Id.
206. Id.
by a tree behind an eight-year-old murdered in the bombing. 207
Standing above the backpack was a young man wearing a white
baseball cap oriented backwards—Dzhokhar Tsarnaev, one of the
two Boston bombers. 208

The crowdsourcing of investigative leads in the urgent search for
the Boston bombers still on the loose is just one dramatic example of
the important role community-member recordings can play. At its
base, crowdsourcing means taking a task formerly performed in-
house and outsourcing to a large network of people via an open
call. 209 When authorities issue an open call for public assistance in
generating leads to solve crimes and assist in prosecution, the
approach draws on the logic of crowdsourcing.

In an era of toutveillance, where everyone wields a camera,
crowdsourcing recordings from the public and private entities can
generate important leads. 210 This is why there is a potentially powerful
market for innovative technologies that allow police officers to invite
members of the public to upload and share their videos securely. 211
Beyond investigation and prosecution, however, there are other
valuable reasons to seek and secure recordings by members of the
public and private entities.

2. Remediating Perceptual Biases and Limitations

The recordings of the arrest of Florida resident Derek Price on
charges of armed drug trafficking, possession, and resisting arrest
illustrate the potential import of supplementing police body-camera
videos with recordings by community members or private entities. 212
From the official police images of multiple seized firearms and stacks
of drugs, the Price case seemed to be part of a major bust of
potentially dangerous dealers. 213 The body-camera footage of the
take-down of Prince shows officers appearing to be struggling with a
resistant suspect while yelling at him to stop resisting. 214

207. Id.
208. Id.
209. Daren C. Brabham, Crowdsourcing as a Model for Problem Solving, 14
210. For a discussion of toutveillance, see supra notes 4–6 and accompanying text.
211. See Axon Citizen, supra note 193.
212. Friedersdorf, supra note 142.
213. Drug Ringleader Busted in Marion Oaks, Ocala Post (Aug. 8, 2014),
N2H9].
214. Friedersdorf, supra note 142.
Yet, a private surveillance camera mounted at a higher angle to capture the full scene gave a much different depiction of the arrest of Prince. The private camera showed that Prince put his hands up and then lay prone with his hands behind him in surrender. Multiple officers kicked and beat him as he lay prone, shouting at him to stop resisting, apparently in a display for the body cameras. The contrasting revelations of the private camera with the body-camera footage illustrates both the perils of video evidence and the benefits of multiple cameras recording.

Cameras wielded by the public, or perhaps mounted as part of private surveillance, offer not only potentially different angles and frames for a scene but also present a different perspective. Cinematic theory suggests that the point of view of the camera is important in eliciting sympathy for that perspective. Seeing from the point of view of the officer gives a sense of intimacy with the officer’s perspective. The sense of seeing through the officer’s eyes heightens the sympathy for that officer’s perspective. The same technique can be marshalled to the advantage of the community member recording from her perspective, offering a competing narrative. The private surveillance video mounted from above, surveying the scene from a seemingly omniscient perspective also can shift the balance of perspective and potential sympathies. Where private video exists, pooling the recordings with police videos can potentially offer a fuller record for decision-making.

3. Crowdsourcing Accountability

Bystander recordings have proven to be powerful supplements to body cameras in controversial cases. Consider, for example, the fatal shooting of Alton Sterling. Though the two Baton Rouge police officers involved in the shooting of Alton Sterling said their body cameras fell off, two bystanders were still able to capture graphic

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215. Id.
216. See id.
217. Id.
219. Id.
220. See id. (“The POV shot generally lends sympathy to the protagonist by allowing us to see through the character’s eyes.”).
footage of the tragic encounter. Sterling died after he asked a homeless man who would not stop seeking money from him to leave him alone and displayed his gun. The homeless man called 911 claiming that Sterling was “brandishing a gun.” A bystander’s video of the officers’ subsequent shooting of Sterling, a father and CD salesman, went viral and commanded national attention.

In Charlotte, cell phone camera footage of the shooting of Keith Scott, recorded by his wife Rakeyia Scott, intensified pressure on the Charlotte-Mecklenburg Police Department to release their videos of the fatal encounter. The father of seven parked his car in a spot where he often waited for his kids to come home from school, a visitor’s space at his apartment complex located about half a mile from the University of North Carolina, Charlotte. Around 4:00 p.m., Charlotte-Mecklenburg police officers arrived at the complex to serve a search warrant. The officers claimed that they saw Scott holding a gun next to his SUV, then climb inside. In her homemade recording, Mrs. Scott repeatedly begged the officers not to shoot, saying her husband was unarmed and had a traumatic brain injury. The officers repeatedly yelled at Scott to drop a weapon. It is unclear from Mrs. Scott’s recording whether her husband was holding a weapon; Scott’s family says he was holding a book.

When authorities released their videos, further controversy arose over the failure to record the fatal moment by body camera. The plainclothes officers who initially responded were not wearing body cameras, but a subsequent officer with a body camera who arrived

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223. Id.

224. Id.

225. Id.


228. Id.

229. Id.

230. Id.

231. Id.

232. Id.

233. Lowery, supra note 119.

234. Id.
at the scene did not activate the recording until after the fatal shooting.235

These controversies illustrate the import of recordings by community members to supplement the record even in jurisdictions that have deployed body cameras. In addition to offering a different perspective on a contested encounter, sometimes a community member’s recording may be the sole usable video capturing the crucial moments. Addressing the missing video problem, bystander cameras can help provide information about crucial moments even when officers fail to activate their cameras. Bystander recordings also can give officers incentive to record and to capture a contested encounter from the police perspective.236

The rapid pace at which viral videos get disseminated on social media also places pressure on police departments to respond—and perhaps get their videos out more quickly.237 Even in jurisdictions that give law enforcement wide discretion over whether to disclose videos—or make disclosure onerous—the pressure of competing with a viral video gives law enforcement an incentive to expedite release. Finally, community-member videos are not subject to collectively bargained limits on the use of body-camera recordings for officer evaluation.238 This yields powerful potential if citizen recordings of the police are aggregated and mined for potentially problematic patterns and practices.

C. Likely Concerns, Barriers, and Objections

As with any advance beyond common practice, there are likely to be several concerns, barriers, and objections. Three chief concerns include resistance to sharing video data, privacy, and costs. First, residents of disadvantaged communities with strong levels of police mistrust are unlikely to want to relinquish control of their videos to the police.239 Given the controversies over nondisclosure or delayed disclosure of police videos in some jurisdictions, this reluctance may

235. Id.
236. For a discussion of the partiality of perspectives, see supra Section II.B.
237. See Blinder, supra note 226.
238. See supra Section II.C.
be well-founded. The reluctance is not fatal. The benefits of pooling public videos may still be attained through an independent repository.

With the proper safeguards for data integrity, an independent repository would honor community control and the oft-voiced hopes for accountability and harm prevention. Quality and access control over the repository could be vested in a combined board of community members, copwatchers, and independent experts. The experts would donate time to advise on data integrity, quality control, and control of access to qualified researchers engaged in pattern and practice detection and harm prevention efforts. Independent datasets maintained with appropriate quality controls can be merged with other datasets, including police videos, obtained by independent analysts seeking to create larger datasets for pattern and practice detection.

Currently, storage of volumes of video in a way that assures data integrity and analytical capability is one of the most costly parts of the police recording revolution. Data storage cost estimates depend on the volume of video that must be stored and the contract each agency negotiates with a private company offering secure cloud storage services. Stored video can grow to petabytes of data, and one petabyte is the equivalent of twenty million four-drawer cabinets worth of files. The smaller Bryan Police Department in Texas, with 143 sworn officers, negotiated a five-year contract that includes $135,564 per year to pay for cloud storage and related licenses. On the other end of the size spectrum, the Los Angeles Police Department estimated that unlimited data storage for 860 body

240. See Fan, supra note 59, at 413–15 (discussing the rise of legislation and policies limiting disclosure).
244. Id.
cameras costs $868,428 per year.\textsuperscript{245} Though data storage costs are likely to fall as technology advances, the current costs remain a formidable challenge for the start-up of independent repositories. One way to address this challenge is to forge private- and public-sector partnerships between major private cloud storage companies and research universities. Major companies such as Microsoft have strong track records of partnering with universities and investing millions of dollars to engage in technology-related public service.\textsuperscript{246} Part public service, part market development, these endeavors have the potential to generate a wealth of information to prevent harm and protect the public. State, local, and federal grants as well as private funding for projects by philanthropies, such as the Soros Foundation or the William and Flora Hewlett Foundation, can also help launch the endeavor.\textsuperscript{247}

The third challenge, privacy, presents one of the hardest value trade-offs. Privacy proponents view video data retention and aggregation as alarming.\textsuperscript{248} In the age of ubiquitous and intrusive data collection, deletion is viewed as a virtual human right.\textsuperscript{249} Deletion certainly can be an important way to ensure that people are not frozen in their worst moments.\textsuperscript{250} The aggregation of information, such as data on bankruptcies or criminal history, can haunt people and stunt their potential to recover and flourish.\textsuperscript{251} Information-based approaches to improving regulation must acknowledge head-on the privacy costs that society must pay.

\begin{itemize}
\item[245.] Frank Stoltze, $7M Annual Cost for LAPD Body Cameras, 89.3 KPCC (Mar. 30, 2015), https://www.scpr.org/news/2015/03/30/50678/7m-annual-cost-for-lapd-body-cameras/ [http://perma.cc/6QUS-QW82].
\item[248.] See, e.g., STANLEY, supra note 89, at 6–7 (discussing concerns over data retention).
\item[249.] See, e.g., Jeffrey Rosen, The Right to Be Forgotten, 64 STAN. L. REV. ONLINE 88, 88–90 (2012) (discussing European Commission proposals on the right to be forgotten when it comes to digital data).
\item[250.] See, e.g., MEG LATA JONES, CONTROL+Z: THE RIGHT TO BE FORGOTTEN 3 (2016) (discussing the problem that not deleting videos can pose).
\end{itemize}
I have written previously about the high privacy costs that communities pay for the strategy of police regulation by recording.\textsuperscript{252} The privacy tax is potentially regressive in the sense that disadvantaged communities struggling with higher crime rates may bear the heavier brunt of recording.\textsuperscript{253} I caveat the point about the potentially regressive nature of privacy costs because more empirical evidence is needed to draw such a conclusion. An alternative hypothesis is that communities with greater resources may enjoy more police patrols and readier responses when community members call the police for help. Police forces in better-resourced communities may actually be more likely to wear and activate body cameras. These alternative possibilities mean that the volume of body-camera video may not necessarily be concentrated in the most disadvantaged communities.

What is clearer is that the need for improved control and the democratization of proof is particularly acute in disadvantaged communities. When Michael Brown’s grieving mother called for police-worn body cameras, and when civil liberties groups like the ACLU and NAACP did so too, these privacy costs and risks were known trade-offs.\textsuperscript{254} The hope was that communities would gain better surveillance of the police and better evidence and accountability.\textsuperscript{255} The challenge now is ensuring that the hoped-for benefits of improved harm prevention and accountability actually occur. Scholars and some civil rights advocates have expressed concern that body-camera recordings have become another way to get evidence against community members to speed the path to conviction.\textsuperscript{256} The power to use body-camera videos is often one-sided, just like other controversial police powers, because law enforcement controls and limits access to videos. Indeed, a growing number of laws forbid disclosure of videos, often in the name of protecting privacy, among other concerns.\textsuperscript{257}

Currently, transactional myopia limits the vision of the value of recordings. Theorized by Andrew Crespo, transactional myopia refers to a short-sighted focus on an individual case, missing systemic

\textsuperscript{252} Fan, supra note 59, at 397–400, 405–07.

\textsuperscript{253} See, e.g., Sacharoff & Lustbader, supra note 160, at 324 (noting that minority neighborhoods that face the “largest police presence” will experience “greater electronic surveillance” if officers are outfitted with body cameras).

\textsuperscript{254} See supra text accompanying notes 85–87 regarding calls for police-body worn cameras by Michael Brown’s mother and civil liberties and civil rights groups.

\textsuperscript{255} Sacharoff & Lustbader, supra note 160, at 279–88.

\textsuperscript{256} Id. at 293–94.

\textsuperscript{257} Fan, supra note 59, at 397–400, 405–07.
patterns that may emerge by analyzing across cases.\textsuperscript{258} If the retention value of a police video is measured just by its evidentiary use in a particular case, then recordings will be primarily another way to strengthen the prosecutor’s case. The ordinary definition of evidence in the criminal justice system is to prosecute misbehaving community members, not to police the police. Yet the power of aggregated video data is the ability to detect patterns and practices that may lead to escalation in injury or death. A recent study led by Stanford University’s Jennifer Eberhardt shows the power of body-camera video analytics.\textsuperscript{259} The research team developed computational linguistic models to measure officers’ respect and formality during traffic stops of community members.\textsuperscript{260} Appplying the computational linguistic techniques to 183 hours of body-camera recordings documenting 981 traffic stops by officers of the Oakland Police Department, the investigators found strong evidence of racial disparities in officer respectfulness during traffic stops.\textsuperscript{261} These disparities persisted after adjusting for officer, race, infraction severity, stop location, and outcome—and could even be detected at the outset of encounters, before the stopped person had much of a chance to talk at all.\textsuperscript{262}

Audiovisual data mining can expand the utility of video evidence to better inform police regulation and address risk factors for harm during interactions. The Stanford team also illustrated how powerful analytical techniques can protect the privacy of individual community members and police officers by disaggregating the data from individual identities.\textsuperscript{263} The retention and aggregation of audiovisual data will likely still trouble some strong privacy proponents. Ultimately, the question is whether society values this potential benefit to pay the privacy price for it. We pay privacy prices for all sorts of social goods, from social media to Gmail to smartphones. These innovations offer us greater ease, convenience, and control over our relationships, but come at the steep price of an unprecedented erosion of privacy and the ability to aggregate and reveal our most intimate information. We have been willing to pay


\textsuperscript{260} Id. at 6522–23.

\textsuperscript{261} Id. at 6524.

\textsuperscript{262} Id. at 6524–25.

\textsuperscript{263} Id. at 6524.
the privacy price for modern conveniences. Communities are likely to be willing to pay the privacy price for the peace and safety of their residents, and the officers who protect and serve them.

**CONCLUSION**

Two recording revolutions are sweeping policing. 264 The first is recording by members of the public. 265 The second involves the rapid uptake of police-worn body cameras among police departments since 2014, after recurring controversies over police killings of minority men caught national attention. 266 While these dual recording revolutions appear adversarial to scholars and in showdowns on the street, they can be complementary to enhance investigation, address weaknesses and blind spots in interpretation, and enhance police accountability. 267

The multiplicity of videos from different angles and perspectives can also help address three emerging challenges with body cameras: failures to record, perceptual and interpretative biases and limitations, and nondisclosure or restrictions on use for officer evaluation. 268 Pooling videos recorded by the public in secure storage to ensure evidentiary integrity, either together with police videos or in an independent repository, or both, can help maximize the complementary power of public and police videos. 269 There are synergistic benefits to letting multiple cameras record, and videos from diverse perspectives contend. 270

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264. *See supra* Part I.
265. *See supra* Section I.A.
266. *See supra* Section I.B.
267. *See supra* Part III.
268. *See supra* Sections II.A–C.
269. *See supra* Sections III.A.1–2.